DRAWING AMENDMENTS

Replacement and annotated drawing sheets for Figs. 1 and 2 are attached.

<u>REMARKS</u>

In an Office Action mailed on April 1, 2005, objections were made to the drawing; objections were made to the specification; claims 10-12 were rejected under 35 U.S.C. § 112, first paragraph; claims 1, 5-9, 17 and 21-25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Smart; and claims 2-4, 13-16, 18-20 and 26-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Smart in view of Marchok. Independent claim 10 has been amended to replace the word "tone" in lines 5 and 7 to overcome the § 112, first paragraph rejections. Additionally, replacement figures are submitted herewith to overcome the objections to the drawing; and the specification has been amended to overcome the objections to the specification. The §§ 102 and 103 rejections are addressed below.

<u>§§ 102 and 103 Rejections of Claims 1-9</u>:

The method of independent claim 1 includes receiving a signal that indicates a modulated symbol during a given time slice of the signal and performing sliding window frequency transmissions of the signal. Each sliding window transformation is associated with a different time interval of the signal. The method includes based on the sliding window frequency transformations of the signal, selecting one of the time intervals to correspond to the time slice and using the result of the frequency transformation that is associated with the selected time interval to obtain an indication of the demodulated symbol.

Contrary to the limitations of amended independent claim 1, Smart generally discloses sliding window transforms, such as the sliding window transforms 1511 and 1521. Smart also describes, in connection with Fig. 12, a block 1203 to extract symbols for a packet. However, Smart fails to teach or even suggest based on sliding window frequency transformations, selecting one of the time intervals that corresponds to the frequency transformations and using the associated frequency transformation to obtain an indication of the demodulated symbol. Without such a teaching, Smart fails to anticipate amended independent claim 1.

Claims 2-9 are patentable for at least the reason that these claims depend from an allowable claim. Therefore, for at least the reasons that are set forth, withdrawal of the §§ 102 and 103 rejections of claims 1-9 is requested.

§ 103 Rejections of Claims 13-16:

The method of independent claim 13 includes performing frequency transformations of a signal that contains a modulated symbol. The method includes correlating the frequency transformations with a first pilot code and correlating the frequency transformations with a second pilot code. The method includes comparing the results of the correlations with the first and second pilot codes to select one of these frequency transformations to obtain an indication of the demodulated symbol.

Independent claim 13 overcomes the § 103 rejection for at least the reason that a *prima facie* case of obviousness has not been established for this claim. In this regard, as discussed above in connection with claim 1, Smart fails to teach or suggest the selection of a particular frequency transformation in order to obtain an indication of a demodulated symbol. Marchok fails to teach or suggest the missing claim limitations. In this regard, Marchok merely discloses searching frequency bins for purposes of recognizing a pilot tone. However, such a technique does not teach or even suggest the correlation of frequency transformations with a first pilot code and a second pilot code, as specifically recited in independent claim 13. Furthermore, neither Marchok nor Smart teach or suggest the selection of a frequency transformation as a result of a comparison of these correlations. Therefore, for at least any of these reasons, the hypothetical combination of Smart and Marchok fails to teach or suggest all claim limitations; and thus, a *prima facie* case of obviousness has not been set forth for claim 13.

Claims 14-16 are patentable for at least the reason that these claims depend from an allowable claim. Thus, for at least the reasons that are set forth above, withdrawal of the § 103 rejections of claims 13-16 is requested.

§§ 102 and 103 Rejections of Claims 17-25:

The receiver of independent claim 17 includes an engine to perform sliding window frequency transformations of a signal. Each sliding window transformation is associated with a different time interval of the signal. The engine selects one of the time intervals to correspond to a given time slice of a signal associated with a modulated symbol and use the result of the frequency transformation associated with the selected time interval to obtain an indication of the demodulated symbol.

Contrary to the limitations of amended independent claim 17, Smart fails to teach or suggest an engine to based on sliding window transformations, select one of the time intervals associated with the transformations to correspond to a given time slice of a signal in which the signal indicates a modulated symbol. As such, Smart fails to anticipate amended independent claim 17. See discussion of independent claim 1 above.

Claims 18-25 are patentable for at least the reason that these claims depend from an allowable claim. Therefore, for at least the reasons that are set forth above, withdrawal of the §§ 102 and 103 rejections of claims 17-25 is requested.

§ 103 Rejections of Claims 26-29:

The apparatus of independent claim 26 includes an engine to perform frequency transformations of a signal that contains a modulated symbol. The engine correlates the frequency transformations with first and second pilot codes and compares the results of the correlations with the first and second pilot codes to select one of the frequency transformations to obtain an indication of the demodulated symbol.

See discussion of independent claim 13 above. In particular, Smart fails to teach or suggest correlating frequency transformations with pilot codes. Although Marchok generally discusses the scanning of frequency bins to locate pilot tones, Marchok neither teaches nor suggests correlating frequency transformations with pilot codes. Furthermore, neither Smart nor Marchok teach or suggest comparing results of such correlations to select a frequency transformation. Thus, for at least any of these reasons, a *prima facie* case of obviousness has not been established for claim 26, as the hypothetical combination of Smart and Marchok fails to teach or suggest all claim limitations.
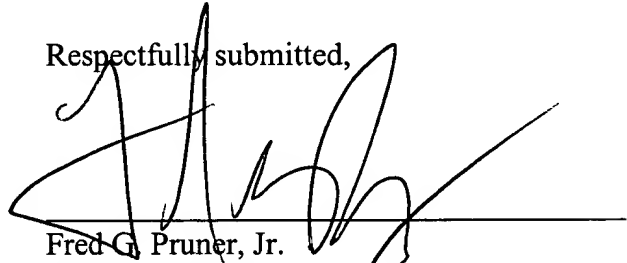
Claims 27-29 are patentable for at least the reason that these claims depend from an allowable claim. Thus, for at least the reasons that are set forth above, withdrawal of the § 103 rejections of claims 26-29 is requested.

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CONCLUSION

In view of the foregoing, withdrawal of the §§ 102 and 103 rejections and a favorable action in form of a Notice of Allowance are requested. The Commissioner is authorized to charge any additional fees, including extension of time fees, and/or credit any overpayment to Deposit Account No. 20-1504 (ITL.0547US).

Respectfully submitted,

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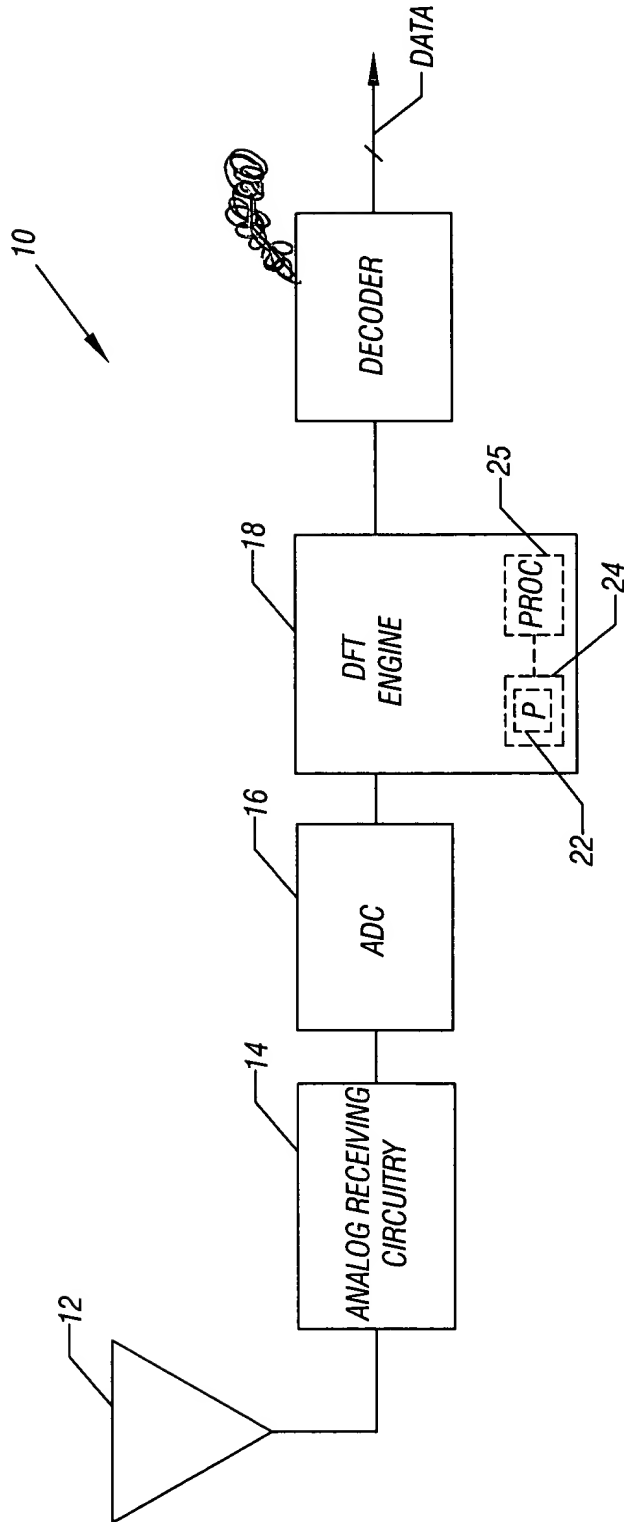
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12

14

ANALOG RECEIVING CIRCUITRY

16

ADC

18

DFT ENGINE

22

P

24

25

PROC

DECODER

DATA

FIG. 1

FIG. 2